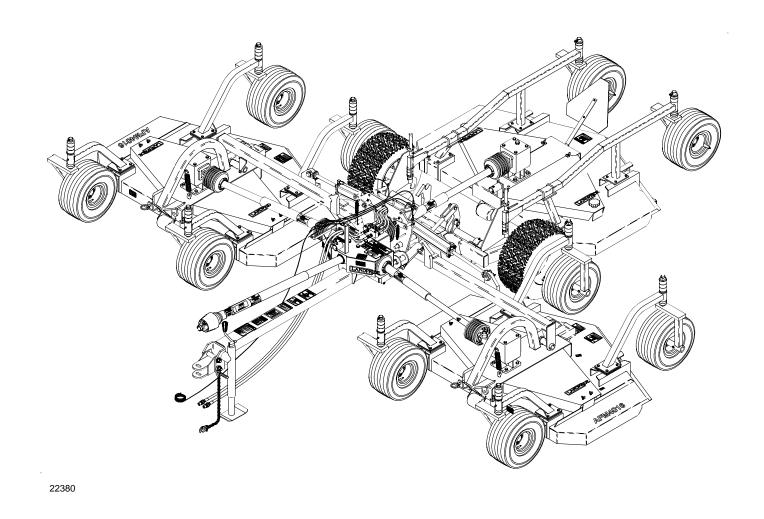
All Flex Grooming Mowers

AFM4011, AFM4014 and AFM4016



315-160M Operator's Manual





Read the Operator's manual entirely. When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!

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7/28/06

Cover photo may show optional equipment not supplied with standard unit.



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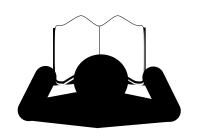
These are common practices that may or may not be applicable to the products described in this manual.

Safety at All Times

Thoroughly read and understand the instructions given in this manual before operation. Refer to the "Safety Label" section, read all instructions noted on them.

Do not allow anyone to operate this equipment who has not fully read and comprehended this manual and who has not been properly trained in the safe operation of the equipment.

- ▲ Operator should be familiar with all functions of the unit.
- ▲ Operate implement from the driver's seat only.
- Make sure all guards and shields are in place and secured before operating the implement.
- ▲ Do not leave tractor or implement unattended with engine running.
- Dismounting from a moving tractor could cause serious injury or death.
- ▲ Do not stand between the tractor and implement during hitching.
- ▲ Keep hands, feet, and clothing away from power-driven parts.
- ▲ Wear snug fitting clothing to avoid entanglement with moving parts.
- Watch out for wires, trees, etc., when raising implement. Make sure all persons are clear of working area.
- ▲ Turning tractor too tight may cause implement to ride up on wheels. This could result in injury or equipment damage.





Look For The Safety Alert Symbol

The SAFETY ALERT SYMBOL indicates there is a potential hazard to personal safety involved and extra safety precaution must be taken. When you see this symbol, be alert and carefully read the message that follows it. In addition to design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

Be Aware of Signal Words

A Signal word designates a degree or level of hazard seriousness. The signal words are:

A DANGER

Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

A WARNING

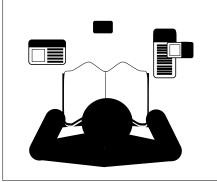
Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

A CAUTION

Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

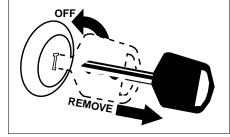
For Your Protection

▲ Thoroughly read and understand the "Safety Label" section, read all instructions noted on them.



Shutdown and Storage

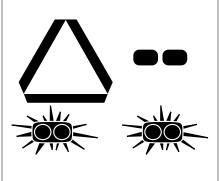
- ▲ Lower machine to ground, put tractor in park, turn off engine, and remove the key.
- ▲ Detach and store implements in a area where children normally do not play. Secure implement by using blocks and supports.



These are common practices that may or may not be applicable to the products described in this manual.

Use Safety Lights and Devices

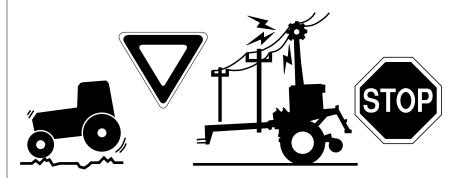
- ▲ Slow moving tractors, selfpropelled equipment, and towed implements can create a hazard when driven on public roads. They are difficult to see, especially at night.
- ▲ Flashing warning lights and turn signals are recommended whenever driving on public roads. Use lights and devices provided with implement.



Transport Machinery Safely

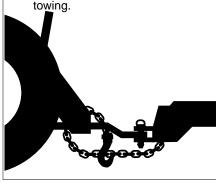
- ▲ Comply with state and local laws.
- Maximum transport speed for implement is 20 mph. DO NOT EXCEED. Never travel at a speed which does not allow adequate control of steering and stopping. Some rough terrain require a slower speed.
- ▲ Sudden braking can cause a towed load to swerve and upset. Reduce speed if towed load is not equipped with brakes.

- ▲ Use the following maximum speed tow load weight ratios as a guideline:
 - **20 mph** when weight is less than or equal to the weight of tractor.
 - **10 mph** when weight is double the weight of tractor.
- **IMPORTANT:** Do not tow a load that is more than double the weight of tractor.



Use A Safety Chain

- A safety chain will help control drawn machinery should it separate from the tractor drawbar.
- ▲ Use a chain with the strength rating equal to or greater than the gross weight of the towed machinery.
- ▲ Attach the chain to the tractor drawbar support or other specified anchor location. Allow only enough slack in the chain to permit turning.
- ▲ Do not use safety chain for



Practice Safe Maintenance

- Understand procedure before doing work. Use proper tools and equipment, refer to Operator's Manual for additional information.
- ▲ Work in a clean dry area.
- ▲ Lower the implement to the ground, put tractor in park, turn off engine, and remove key before

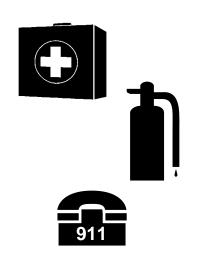
- performing maintenance.
- ▲ Allow implement to cool completely.
- ▲ Do not grease or oil implement while it is in operation.
- ▲ Inspect all parts. Make sure parts are in good condition & installed properly.
- ▲ Remove buildup of grease, oil or debris.
- Remove all tools and unused parts from implement before operation.



These are common practices that may or may not be applicable to the products described in this manual.

Prepare for Emergencies

- ▲ Be prepared if a fire starts.
- ▲ Keep a first aid kit and fire extinguisher handy.
- ▲ Keep emergency numbers for doctor, ambulance, hospital and fire department near phone.



Wear Protective Equipment

- ▲ Protective clothing and equipment should be worn.
- ▲ Wear clothing and equipment appropriate for the job. Avoid loose fitting clothing.
- ▲ Prolonged exposure to loud noise can cause hearing impairment or hearing loss. Wear suitable hearing protection such as earmuffs or earplugs.
- Operating equipment safely requires the full attention of the operator. Avoid wearing radio headphones while operating machinery.



Avoid High Pressure Fluids Hazard

- ▲ Escaping fluid under pressure can penetrate the skin causing serious injury.
- Avoid the hazard by relieving pressure before disconnecting hydraulic lines.
- ▲ Use a piece of paper or cardboard, NOT BODY PARTS, to check for suspected leaks.
- ▲ Wear protective gloves and safety glasses or goggles when working with hydraulic systems.
- ▲ If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be treated within a few hours or gangrene may result.



Tire Safety

- ▲ Tire changing can be dangerous and should be performed by trained personnel using the correct tools and equipment.
- ▲ When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.
- ▲ When removing and installing wheels, use wheel handling equipment adequate for the weight involved.



Keep Riders Off Machinery

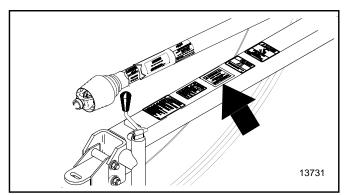
- ▲ Riders obstruct the operator's view, they could be struck by foreign objects or thrown from the machine.
- Never allow children to operate equipment.



Safety Labels

- 1. Your mower comes equipped with all safety labels in place. They were designed to help you safely operate your implement. Read and follow their directions.
- 2. Keep all safety labels clean and legible.
- 3. Replace all damaged or missing labels. To order new labels go to your Land Pride dealer.
- 4. Some new equipment installed during repair requires safety labels to be affixed to the replaced component as specified by Land Pride. When ordering new components make sure the correct safety labels are included in the request. To

- order new labels go to your Land Pride dealer.
- 5. Refer to this section for proper label placement. To install new labels:
 - a. Clean the area the label is to be placed.
 - b. Spray soapy water on the surface where the label is to be placed.
 - c. Peel backing from label. Press firmly onto the surface.
 - d. Squeeze out air bubbles with the edge of a credit card.

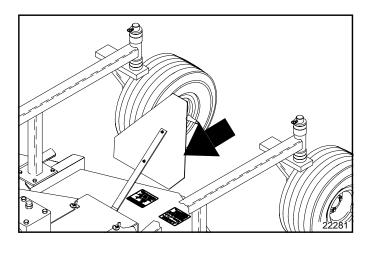


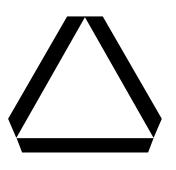


- To prevent serious injury or death:
- Always be certain implement is hitched securely to tractor drawbar before raising.
- Lower implement BEFORE unhitching. 818-019C Rev. C

818-019C

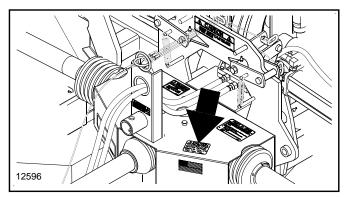
Warning Negative Tongue Weight





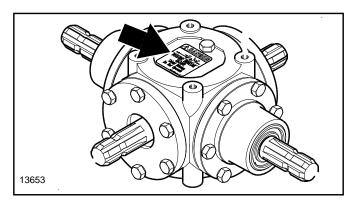
818-003C

Slow Moving Vehicle Label



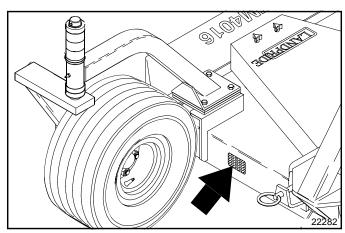


818-130CCaution 540 RPM



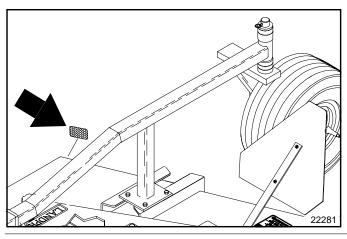


818-187CDanger Shield Missing



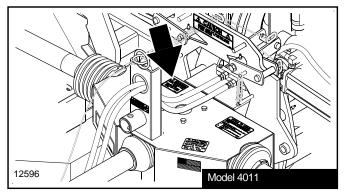


818-229C Amber Reflector





818-230C Red Reflector





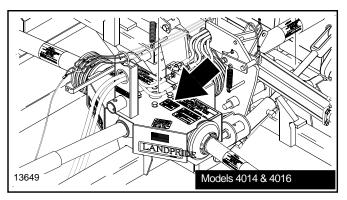
To Prevent Serious Injury or Death:

• Do Not Exceed 20 mph maximum transport speed. Loss of vehicle control and/or machine damage can result.

818-337C Rev. A

818-337C

Warning Max Trans Speed





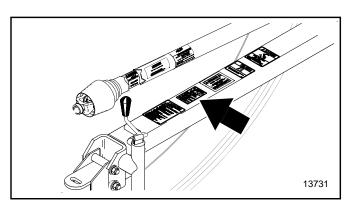
To Prevent Serious Injury or Death:

•Do Not Exceed 20 mph maximum transport speed. Loss of vehicle control and/or machine damage can result.

818-337C Rev. A

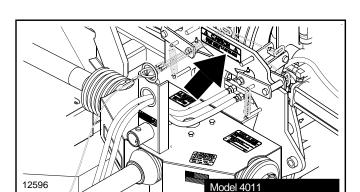
818-337C

Warning Max Trans Speed





818-339CWarning High Pressure





Keep all components in good repair

cardboard instead of hands.

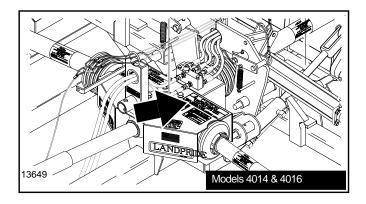
CAUTION

To Avoid Injury or Machine Damage: Transport lock(s) must be engaged

- During extended transport
- When maintenance is being performed

818-351C

Caution Lock For Transport

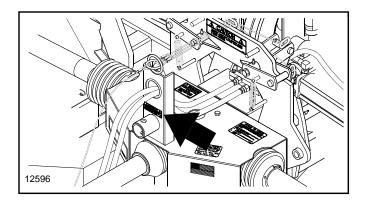


To Avoid Injury or Machine Damage: Transport lock(s) must be engaged

- During extended transport When maintenance is being performed

818-351C

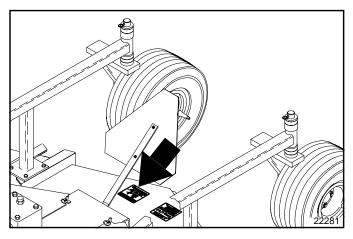
Caution Lock For Transport



To Avoid Injury or Machine Damage
• Transport locks/pins must be disengaged before unfolding unit 818-353C Rev. A

818-353C

Caution Unlock To Unfold

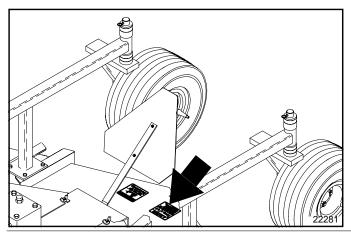




- Operate only with all guards installed and in good condition.
- Stop operation if bystanders come within several hundred feet.

818-556C

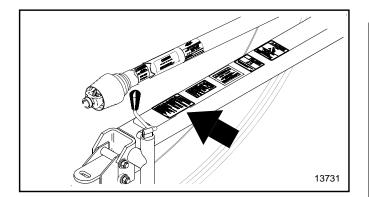
Danger Thrown Object Hazard





- Do not operate with bystanders in mowing area. \bullet Do not operate with deflectors/guards removed.
- Do not place hands or feet under deck when operating or when engine is running.

818-555C Danger Rotating Blade

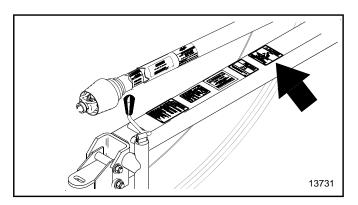


- To prevent serious injury or death:
- Read and understand Operator's manual before using.
- Do not permit riders on the tractor or mower. Never carry child on tractor seat.
- Operate with guards installed and in good condition.
- Operate only with tractor equipped with ROPS and seatbelts.
- Keep away from moving parts.
- Stop engine, set brake and wait for all moving parts to stop before dismounting.
- Be sure lights and reflectors required by law are clean and in good working order before transporting.
 Do not allow children to operate mower.
- Travel with SMV and lights that follow local codes.
- Clean debris from mowing area.
- Do not operate in the raised position.
- Support securely before working beneath unit.
- Review safety instructions annually.

Si no lee ingles, pida ayuda a alguien que si lo lea para que le traduzca las medidas de seguridad.

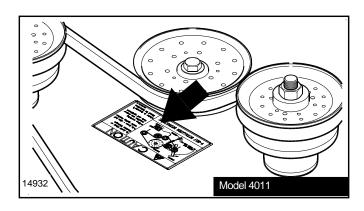
Warning Serious Injury

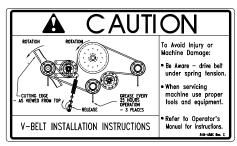
818-558C





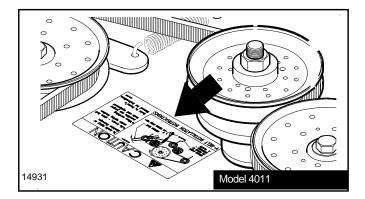


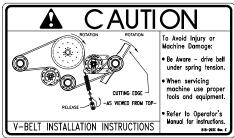




818-456C

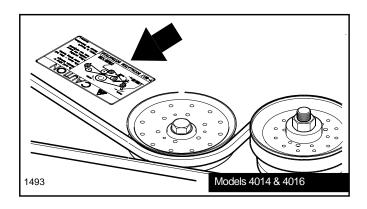
Caution V-Belt Installation

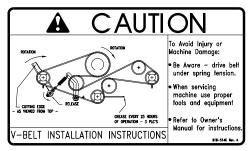




818-293C

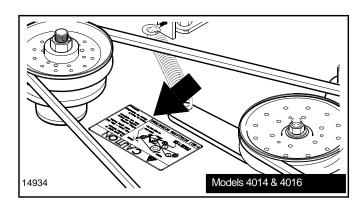
Caution V-Belt Installation

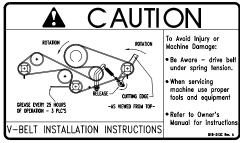




818-514C

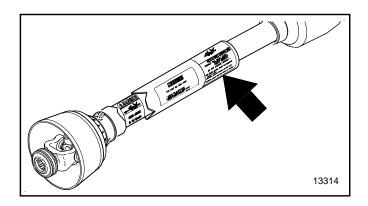
Caution V-Belt Installation





818-513C

Caution V-Belt Installation

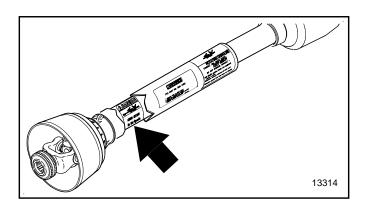




Driveline guards that turn freely on

Driveline

818-552CDanger Entanglement





818-540CDanger Guard Missing

Introduction



Land Pride welcomes you to the growing family of new product owners.

This AFM40 All-Flex Grooming Mower has been designed with care and built by skilled workers using quality materials. Proper assembly, maintenance, and safe operating practices will help you get years of satisfactory use from the machine.

Application

The 11, 14, and 16 foot All-Flex Mowers are designed and built by Land Pride to provide excellent cutting quality and performance on lush type turf grasses that are located on expansive and well manicured areas such as sports fields, theme parks, fairways, turf farms, and large estates.

The AFM4011 requires attachment to a 30-65 hp turf tractor while the AFM4014 and AFM4016 will deliver excellent performance when attached to 40-70 hp tractors. All AFM models are adapted for attachment to 540 rpm pull-type draw bar. They can be ordered with slip-clutch or conventional wing driveline configurations.

The mower offers independent deck flotation and zero turning radius due to the sleek frame design. When you need to transport one of these mowers from one mowing site to another on a public street or right-of-way the hydraulic wing cylinders will easily lift up the wing decks for a 5'-6" transport width on the AFM4011 or 6'-8" transport width on the AFM4014 and AFM4016 mowers. The contour following capability, highly productive cutting widths, and rear discharge design of the floating cutting decks will greatly reduce wide-area cutting times and still deliver finely groomed surfaces at mowing speeds from 2-6 mph.

See "Section 6: Specifications & Capacities" and "Section 7: Features & Benefits" for additional information and performance enhancing options.

Using This Manual

- This Operator's Manual is designed to help familiarize you with safety, assembly, operation, adjustments, troubleshooting, and maintenance. Read this manual and follow the recommendations to help ensure safe and efficient operation.
- The information contained within this manual was current at the time of printing. Some parts may change slightly to assure you of the best performance.
- To order a new Operator's or Parts Manual contact your authorized dealer. Manuals can also be downloaded, free-of-charge from our website at www.landpride.com or printed from the Land Pride Service & Support Center which is already at your dealership.

Terminology

"Right" or "Left" as used in this manual is determined by facing the direction the machine will operate while in use unless otherwise stated.

Definitions

NOTE: A special point of information that the operator must be aware of before continuing.

IMPORTANT: A special point of information related to its preceding topic. Land Pride's intention is that this information should be read and noted before continuing.

Owner Assistance

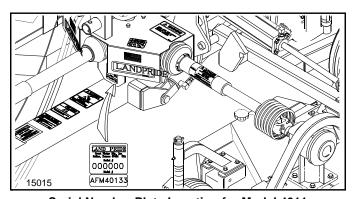
The Warranty Registration card should be filled out by the dealer at the time of purchase. This information is necessary to provide you with quality customer service.

If customer service or repair parts are required contact a Land Pride dealer. A dealer has trained personnel, repair parts and equipment needed to service the implement.

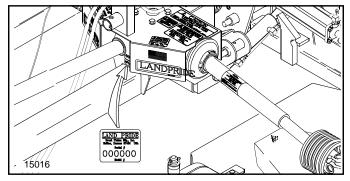
The parts on your All-Flex Grooming Mower have been specially designed and should only be replaced with genuine Land Pride parts. Therefore, should your All-Flex Grooming Mower require replacement parts go to your Land Pride Dealer.

Serial Number Plate

For prompt service always use the serial number and model number when ordering parts from your Land Pride dealer. Be sure to include your serial and model numbers in correspondence also. Refer to Figure 1 for the location of your serial number plate.



Serial Number Plate Location for Model 4011 Figure 1



Serial Number Plate Location for Models 4014 and 4016 Figure 2

For prompt service always use the serial number and model number when ordering parts from your Land Pride dealer. Be sure to include your serial and model numbers in correspondence also.

Your dealer wants you to be satisfied with your new machine. If for any reason you do not understand any part of this manual or are not satisfied with the service received, the following actions are suggested:

- Discuss the matter with your dealership Service
 Manager making sure he is aware of any problems you
 may have and that he has had the opportunity to assist
 you.
- If you are still not satisfied, seek out the Owner or General Manager of the dealership, explain the problem and request assistance.
- 3. For further assistance write to:

Land Pride Service Department 1525 East North Street

> P.O. Box 5060 Salina, Ks. 67402-5060

E-mail address lpservicedept@landpride.com



Tractor Requirements

These mowers are designed for use with tractors having 540 rpm PTO speed. Also required is one dual ported hydraulic remote. The PTO horse power rating should not exceed 50 hp maximum for the 4011 model and 60 hp maximum for the 4014 and 4016 models.

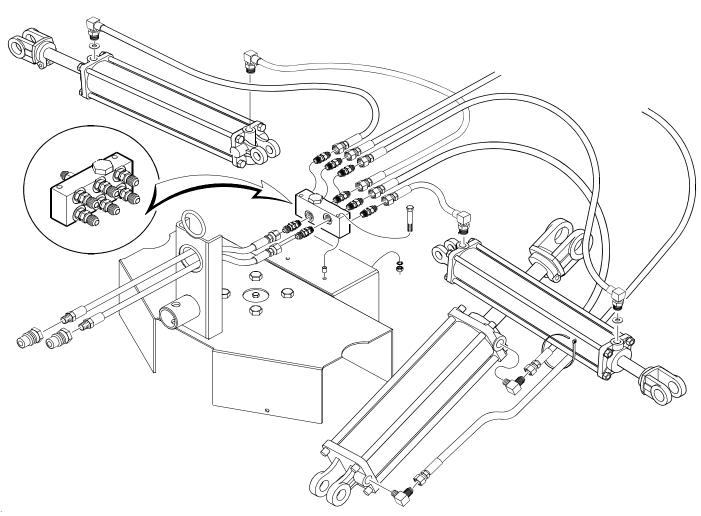
NOTE: In order to maintain steering control, ballast may need to be added to your tractor. To determine whether or not to add the ballast, refer to your tractor's operator manual. This mower has a positive transport tongue weight of approximately 450 lbs. on the 4011; 540 lbs. on the 4014; 580 lbs. on the 4016.



Do not over speed PTO or machine damage may result. This mower is designed to be used with a tractor using a 540 rpm rear PTO.

Hydraulic Plumbing

This mower is equipped with double acting cylinders for folding, refer to Figure 1-1.



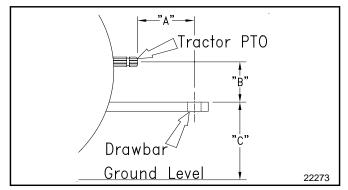
Transport fold Hydraulic Plumbing Figure 1-1

13658

PTO To Drawbar Set-Up

Refer to Figure 1-2

Distances between center of drawbar hitch pin hole to end of tractor PTO shaft ("A" dimension) and from top of drawbar hitch to center of PTO shaft ("B" dimension) must be maintained.



PTO to Drawbar Distances Figure 1-2

- "A" = 14" for 540 rpm
- "B" = 8" for 540 rpm

IMPORTANT: PTO damage may occur if distances "A" and "B" are not properly maintained.

Tractor Hook-up

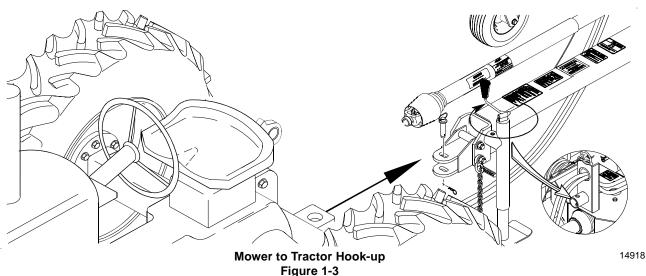
Refer to Refer to Figure 1-3:

- Back the tractor up close to the hitch. Level the mower frame with the tongue jack.
- 5. Adjust the mower's hitch to the tractors draw bar height.
- Attach the mower with a 3/4" hitch pin and secure it with the lock pin. Always use a pin that contains a safety locking device to prevent it from falling out.
- Retract the tongue jack until the weight of the mower is fully removed from the jack, then remove the jack. Store the jack on the storage tube located on top of the divider gear box.

- Attach the safety chain on the frame tongue to the tractor. Adjust the chain length to remove all slack except what is necessary to permit turning of the mower. Lock the hook securely on the chain.
- The driveline shaft from the tractor is a constant velocity type. Always attach the end with the constant velocity joint to the tractor output shaft. Attach the other end to the splined input shaft on the divider gear box on the transport frame.
- Move the driveline back and forth to insure that it is secured on the shaft of the tractor and power divider input shaft on the mower.
- 11. Secure the chain on the driveline around mower frame to restrict the outer shield of the driveline from rotating.

NOTE: A chain is supplied with each driveline. This chain must be attached to the shield cone of each driveline and to an anchor on the mower deck or hitch.

- 12. Should the driveline shaft require shortening:
 - Hold the half shafts next to each other in the shortest working position and mark them.
 - b. Shorten inner and outer guard tubes equally.
 - Shorten inner and outer sliding profiles by the same length as the guard tubes.
 - d. Proper overlap is a minimum of one-half the length of each tube, with both tubes being of equal length.
 - e. Round off all sharp edges and remove burrs. Grease sliding profiles.
- 13. Route the cylinder hoses through the hose support loop and connect to tractor remote outlets. Refer to *Hydraulic Plumbing*, this section on page 13, for proper hookup. Quick disconnect hydraulic fittings for your tractor are supplied with mower.



Section 1: Assembly and Set-up

Bleeding The Fold Hydraulics



CAUTION!

Hydraulic fluid under pressure can penetrate skin. Wear protective gloves and safety glasses or goggles when working with hydraulic systems. Use a piece of cardboard or wood rather than hands when searching for hydraulic leaks. If hydraulic fluid is injected into the skin, it must be surgically removed within a few hours by a doctor or gangrene may result.

With the mower decks lowered onto the ground, remove the connecting pins from the 2 wing cylinder rod ends and the center deck cylinder. Support the cylinders in a vertical position rod end up. Cycle the hydraulic system to extend both of the wing cylinders and the center deck cylinder. Retract the cylinders and repeat this process 2 times. On each cylinder, crack the rod end cylinder fitting and apply hydraulic pressure until air free oil leaks from the fitting and retighten. Support the cylinders in a vertical position with the butt end up and repeat the bleeding process on the rod end cylinder fitting.

Repin all of the rod end clevises. Slowly cycle all decks to transport position checking to make sure the hydraulic hoses are not pinched in the process.



Introduction

It is absolutely essential that no one operates the grooming mower without first having read, fully understood and become totally familiar with the Operator's Manual. Make sure the operator has read and fully understood the following sections:

- Important Safety Information, pages 1 to 10
- Section 1: Assembly and Set-up, page 13
- Section 2: Operating Instructions, page 16
- Section 3: Adjustments, page 20
- Section 5: Maintenance and Lubrication, page 23

Hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training involved in the operation, transport, maintenance and storage of the mower.



DANGER!

Before making adjustments or performing maintenance on your mower, disengage PTO, shut off tractor and wait for all moving parts to stop before dismounting tractor. Disconnect the PTO driveline.

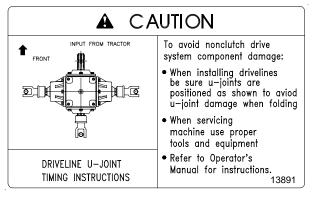
U-Joint Timing

Refer to Refer to Figure 2-1:



CAUTION!

On mowers equipped without slip clutches the deck drivelines (3 each) must be in time to avoid driveline damage when folding - unfolding



U-Joint Timing Figure 2-1

Transporting



Always disengage tractor PTO before transporting mower to avoid injury from thrown objects or blade contact.

A

WARNING!

Do not transport mower faster than 20 mph. When traveling on roadways, transport in such a manner that vehicles moving at a faster rate of speed may pass you safely.



CAUTION!

When traveling on public roads, whether at night or during the day, use accessory lights and devices for adequate warning to operators of other vehicles. Comply with all federal, state, and local laws.

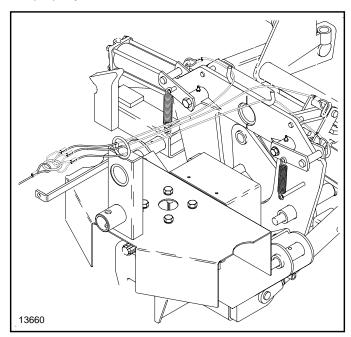


CAUTION!

Care should be taken when encountering oncoming traffic and roadside obstructions if the mower is wider than your tractor.

Refer to Figure 2-2

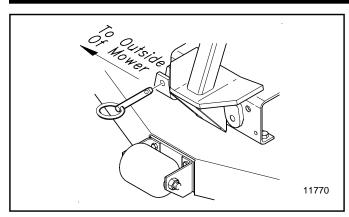
- 1. Raise the 3 mower decks to the transport position by retracting all 3 cylinders completely.
- As the mower decks are raising, the transport locks (3 each) will automatically lock in place when operating properly.



Pull Ropes Figure 2-2

 On 4016 models only: If a narrow transport width is required or if transporting a long distance, install the deck float pin in the lock hole to the outside of the mower on each wing deck, see Figure 2-3.

Section 2: Operating Instructions



Model 4016 Deck Float Pin Figure 2-3

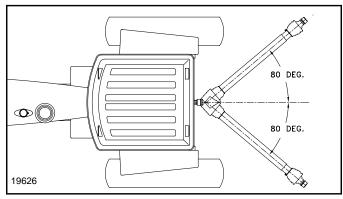
NOTE: Be sure to remove the deck floating pins before unfolding mower decks.

4. Refer to "**Operating Instructions**", steps 5 and 6 on page 18 for instructions on lowering the decks.

Constant Velocity Driveline Angle

Refer to Figure 2-4:

The main driveline from the tractor to the mower divider-box is equipped with a constant velocity (CV) joint. This will allow the joint to run with no vibration at angles up to 80 deg.



Constant Velocity Driveline Angle Figure 2-4

IMPORTANT: The CV joint should not be subjected to angles greater than 80 deg. Failure to comply will result in driveline damage.

The constant velocity joint must be greased every 8 hours of operation. Refer to Page 31 "**Driveline Constant Velocity Shaft**".

Pre-Operation Instructions

Proper servicing and adjustments are key to the long life of any machine. With careful and systematic inspection of the mower, you can avoid costly maintenance, time and repair. Before beginning to operate your grooming mower the following inspection should be performed.

- Grease driveline shaft and all other grease fittings.
- Check oil level in gearboxes. Refer to the Lubrication portion of the "Maintenance and Lubrication" section starting on page 23.
- Check all plugs and caps in gearboxes to make certain that they have been replaced and tightened properly.
- Check mower blades for sharpness and damage. See "Blade Inspection" on page 23.
- Be sure blades are installed properly on each deck with the cutting edge leading in rotation. See "Blade Removal And Installation" on page 24.
- Be sure all mower blades bolts are tight. Know which center blade bolts are left hand threaded and which are right hand threaded when checking for tightness. See "Blade Removal And Installation" on page 24.
- Be sure all bolts and nuts are tight.
- Be certain all guards and shields are in place and secure.
- Clear the area to be mowed of objects and debris that might be picked up and thrown by the mower blades
- Operate with 540 rpm PTO tractor.
- Refer to your tractor's operator manual for engaging and disengaging the PTO.
- In case of emergency learn to stop tractor and mower quickly.
- Complete Operating Check List below.

Operating Check List			
~	Check	Reference	
	Safety Rules	Page 1	
	Gearbox Gear Lube	Page 23	
	Tractor Hook-up	Page 14	
	Tire Inflation Chart	Page 46	
	Lubricate the mower as needed.	Page 23	
	Check the mower initially and periodically for loose bolts & pins.		
	Make sure the hitch safety chain is securely attached to the mower hitch and the tractor.	Page 14	
	Inspect the blades. Make note of the wear to the blades and the sharpness of the blades.	Page 23	
	Make a thorough examination of the driveline. Also check the connection to the gearboxes and tractor PTO.		
	Make sure all guards and shields are in place.		

Operating Instructions



DANGER!

Stop operation if bystanders come within several hundred feet



WARNING!

Do not operate mower in raised position.



WARNING!

Operate mower with guards installed and in good condition. Keep away from moving parts.



WARNING!

The following operating procedures must be carefully read and fully understood. You are the tractor operator and are therefore responsible for the safe operation of this unit. All other persons must be cleared of the area. Cutter operation must be stopped when in the vicinity of other persons.

- After attaching the tractor to the mower, carefully check all hoses and wires to be sure they will not contact the PTO driveline.
- 2. Check PTO guards to make sure they are in good condition and in place.
- Inspect Hydraulic hoses for wear, damage and hydraulic leaks. See "Avoid High Pressure Fluids Hazard" on page 3. Replace damaged and worn hoses with genuine Land Pride parts.
- Check the following after the PTO has been disengaged and come to a complete stop. Wear your safety glasses.
 - Check mower blades for sharpness.
 - Ensure that bolts and nuts are tight.
 - Check tractor safety equipment. To be sure they are in good working condition.
- 5. **On 4016 models only:** Refer to Figure 2-3 on page 17. Remove the deck floating pins before unfolding mower decks.



CAUTION!

Before unfolding the mower make sure the transport locks are unlatched. Unlatch locks by pulling the rope.

- 6. Refer to Figure 2-2 on page 16. Lower the mower decks to the ground by:
 - Retracting the hydraulic cylinders to remove weight from the transport locks.
 - Pull the transport lock rope toward the tractor to disengage the locks.
 - Hold locks in this position until all 3 mower decks have unfolded enough to allow the lock lugs to become fully disengaged.

 Extend all 3 cylinders to their maximum stroke for maximum field float of mower decks.

IMPORTANT: When unfolding the mower, fully extend the fold cylinders to utilize maximum flexibility. Damage to the mower may occur if the cylinders are not fully extended.

- 7. Set the tractor throttle at idle. Engage the PTO to start the blades rotating.
- 8. At first, begin mowing at a slow forward speed and shift up until the desired speed is achieved maintaining 540 PTO rpm. Mower blades will cut better at 540 PTO blade speed than at reduced throttle.
- 9. After mowing the first 50 feet, stop and check to see that the mower is adjusted properly.
- Grass is best cut when it is dry. Mowing wet grass can cause plugging resulting in grass clumps behind the mower.
- Grass should be mowed frequently as shorter clippings deteriorate faster.
- 12. When mowing extremely tall grass, it is best to raise the cutting height and mow the area, then lower the cutting height and mow a second time at the desired height. For a guide on measuring the cutting height refer to the Cutting Height Chart on page 20.

IMPORTANT: Do not engage PTO with mower decks in the raised position or with engine speed above idle. Doing so will cause damage to the power train components.

IMPORTANT: Do not exceed rated PTO speed of the mower. Excessive engine speed will cause damage to the power train components.

IMPORTANT: Avoid catching the hydraulic hoses on brush, post, stumps, and other protrusions that could damage and/or break them.

General Operating Instructions

By now you should have familiarized yourself with the Operator's Manual, completed the Operator's Checklist, set-up the unit properly and attached your Land Pride All-Flex mower to your tractor.

With the tractor's park brake engaged and the PTO disengaged, start the tractor. Using the tractor's hydraulic control levers, retract the hydraulic deck-lift cylinders all the way in and pull the ropes leading to your transport locks to release them. With the same control levers, slowly lower your mowing decks from transport position to working position on the ground. Having lowered the decks, shut the tractor off, check to make sure the park brake is set and remove the switch key. Dismount from the tractor and preset your mower to the desired cutting height.

Section 2: Operating Instructions

It's now time to do a running operational safety check. It is extremely important that if at any time during this safety check you detect a malfunction in either the mower or tractor that you immediately shut the tractor off, remove the key and set the park brake. Make necessary repairs and/or adjustments before continuing on.

Make sure before starting the tractor that the mower is properly attached to the draw bar with both wings down resting on the ground. Also make sure the driveline is securely coupled to the tractor's PTO shaft, the hydraulic hoses are properly attached to the tractor's hydraulics, the tractor's park brake is engaged and the tractor's PTO drive is disengaged. Starting the tractor and set the engine throttle speed at a low idle. Engage the tractor's PTO drive. If everything is running smoothly, slowly increase the engine rpm until the tractor's engine reaches full PTO operating speed of 540 rpm. If everything is still running as it should, then return the engine to low idle and disengage power to the PTO. Under no circumstances should you ever raise the cutting decks into transport position with the PTO drive engaged. Personal injury and machine damage could result.

You should now be ready to move to your cutting site to begin mowing. On roadway transport in such a manner that faster moving vehicles can easily see you and pass you safely. Reduce your speed when traveling over rough and hilly terrain. Avoid quick or sharp steering corrections. Take extra care to insure that the mower doesn't come into contact with obstacles such as trees, buildings or fences. Use accessory lights and appropriate reflective devices to provide adequate warning to pedestrians and other vehicle operators when traveling on public roads and in the dark of night. Comply with all local, state and federal laws.

It is important that you inspect the area where you will be cutting and clear it of safety hazards and foreign objects either before or after you arrive at the cutting site. Never assume the area is clear. Cut only in areas you are familiar with and are free of debris and unseen objects. In the event you do strike an object, stop the mower and tractor immediately to inspect and make any necessary repairs before resuming operation. It really pays to inspect a new area and to develop a safe plan before mowing.

You will need to maintain a ground speed between 2-6 mph and 540 rpm PTO speed to produce a clean cut. Make a tractor gear and range selection that will enable you to maintain these speed combinations. Generally the quality of cut is better at lower ground speeds. Dense ground cover will create the need to slow down even more. In certain conditions tractor tires will roll grass down resulting in an uneven cut when the grass fails to rebound. Should this happen you may try reversing the direction of cut and/or double cut to achieve the desired finish.

Avoid very low cutting heights especially on extremely uneven terrain. Always cut downward on slopes and avoid crossing the face of steep slopes. Avoid sharp drops and cross diagonally through dips to prevent hanging up the tractor and cutter. Slow down in turns and avoid sharp turns if at all possible. Remember to look back often.

Now you're prepared and well briefed you may begin cutting. Begin cutting by doing the following:

- Reducing the tractor's engine rpm.
- Make sure the mower is on the ground in cutting position.
- Engage the PTO.
- Raise the engine rpm to the appropriate PTO speed.
- Begin mowing.

Make wide turns when possible. Operators of pull-type models must plan ahead and choose a cutting pattern that allows for wider turns. Try increasing or decreasing ground speed to determine the effect on quality of cut. With a little practice you will be pleased with what you and your Land Pride All-Flex Mower can do.

Whether you are done mowing, need to take a break, or just need to make a few adjustments to the mower, remember to always do the following:

- Reduce the tractor's engine rpm.
- Disengage the PTO.
- Stop on level ground.
- Set the park brake.
- Turn off the engine and remove the key.
- Stay on the tractor until the mower blades have come to a complete stop.



Center Deck Height Adjustments



DANGER!

Before making adjustments or performing maintenance on your mower, disengage PTO, shut off tractor and wait for all moving parts to stop before dismounting tractor. Disconnect the PTO driveline.



CAUTION!

Block the decks before making cutting height adjustments.

These adjustments should be made with the mower hooked up to the same tractor that will be used for field operations or one having the same drawbar height. Position the mower on a level surface and hitch adjusted

so the main frame is level to the ground. Tire pressure will affect mowing height. Be sure all tires have the proper pressure as listed in the *Tire Inflation Chart* under the "Appendix" section on page 46.

Refer to *U-Joint Timing* and *Transporting* in the "**Operating Instructions**" on page 16 for instructions on raising and lowering the decks before continuing.

- Raise the decks up to an adequate height and block under the decks to prevent them from falling during gauge wheel height adjustments. Locate equal number of spacers below the spindle tubes on all 10 gauge wheels. see also note after this step.
 - Refer to Figure 3-1 for Minimum Cutting Height Setup and Maximum Cutting Height Set-up.
 - Refer to the Cutting Height Chart on this page for a guide on measuring cutting height.

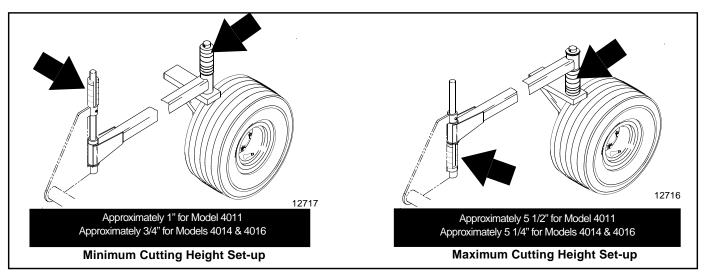
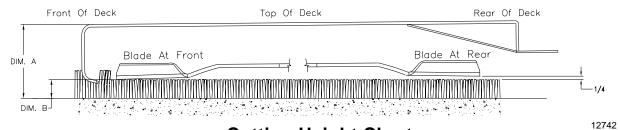


Figure 3-1



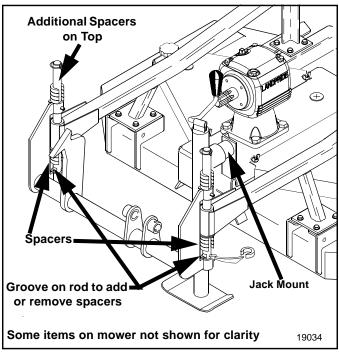
Cutting Height Chart

4011 Models		4014 & 4016			
Α	В	Α	В		
4 7/8"	1"	4 5/8"	3/4"		
5 3/8"	1 1/2"	5 1/8"	1 1/4"		
6 3/8"	2 1/2"	6 1/8"	2 1/4"		
7 3/8"	3 1/2"	7 1/8"	3 1/4"		
8 3/8"	4 1/2"	8 1/8"	4 1/4"		
9 3/8"	5 1/2"	9 1/8"	5 1/4"		

Section 3: Adjustments

NOTE: Due to manufacturing tolerances and tire size differences, it may be necessary to readjust some spacers. Because of this, you may not end up with equal number of spacers on all gauge wheels.

- Lower the mower to the field position making sure all fold cylinders are fully extended.
- 3. To adjust the front of the center deck to match the rear, see Figure 3-2. Place the front screw jack on the jack mount welded to the center gearbox channel. Screw the jack out to lift the front of the mower deck. Position the same amount of spacers below the metal spindle tube as is required for the rear gauge wheels. There is a groove in the carrier rod for adding or removing spacers. Turn the spacers so that the open end will slide in the groove. Remove screw jack and return to storage tube above divider gearbox. Place additional spacers above metal spindle tubes.



Adding or Replacing Spacers Figure 3-2

- Take measurements from the same location on all 3 decks to make sure they are at the same cutting heights.
- 5. Additional fine tuning adjustments may be needed after a test mowing run.



When mowing in sandy soil areas, wear may occur to your mower blades caused from sand erosion. Frequent inspection should be made and blades replaced if damaged.

Belt Tension

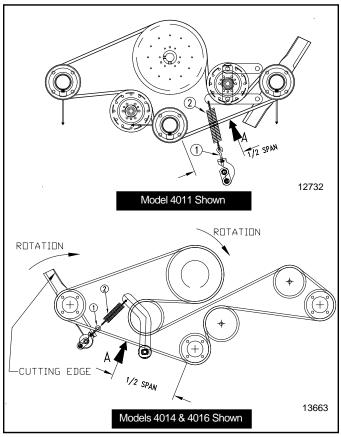
Refer to Refer to Figure 3-3:



CAUTION!

Belt drive system under spring tension; use care to avoid bodily harm!

- To check tension apply force at arrow "A" with a tension tester and deflect the belt 1/4". The force required to get this deflection should range from 7 to 10 lbs.
- 2. To adjust belt tension, adjust eyebolt (#1), as necessary. This adjustment will increase or decrease the tension on spring (#2).
- Excessive tension on the belt may lead to premature failure of belt and drive components. Excessive tension on the belt may also lead to a safety hazard to the operator or bystanders. Not enough tension on the belt may lead to premature failure of the belt due to excessive slipping.



Belt Tension Figure 3-3

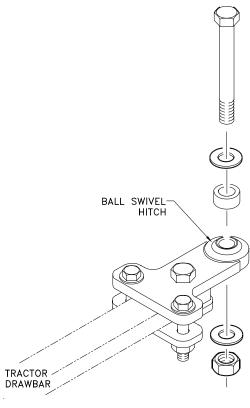
IMPORTANT: Belt tension should be checked on new belts after approximately 20 hours of operation.



Ball Swivel Hitch

Refer to Figure 4-1

The ball swivel hitch clamps firmly to your tractor's drawbar. With this accessory the center deck can pivot about the drawbar in all directions reducing twisting torque and allowing the deck to mow a more evenly height. Hillsides and uneven terrain are ideal for its use. See you local Land Pride Dealer for the ball swivel hitch accessory.



Ball Swivel Hitch Figure 4-1

Cutting Blades

There are four blade choices to select from based upon soil condition, density of grass, and tractor horsepower. The appearance of the finish cut may vary between low lift and high lift blades. See your Land Pride dealer for blade availability.

Low Lift Blades

Land Pride's low lift blades are designed for mowing over sandy soil terrain where high suction lift is not crucial. Sand sucked into the blades accelerates blade wear more than normal. Low lift blades are recommended because they produce a lower suction keeping sand uplift and blade wear to a minimum.

Medium Lift Blades

Land Pride's medium lift blades are great when horsepower is a concern. They produces a medium suction for lifting grass requiring less horsepower than high lift blades.

High Lift Blades

Land Pride's high lift blades develop the greatest suction for lifting grass before cutting for that fresh clean cut look. However, they may require more horsepower especially when cutting tall dense grass. They are not recommended for sandy soil conditions.

Mulching Blades

Land Pride's mulching blades are designed to chop leaves and/or grass into smaller parts leaving your lawn looking fresher and cleaner than ever before.

Accessory Part Numbers

Land Pride All-Flex Mower Accessories				
Part No.	Part Description			
Ball Swivel Hitch				
315-370A	Ball Swivel Hitch			
Low Lift Blades Kit for 1 unit (9 blades)				
	AFM4011 (Kit)			
315-262A	AFM4014 (Kit)			
315-259A	AFM4016 (Kit)			
Medium Lift BladesKit for 1 unit (9 blades)				
	AFM4011 (Kit)			
	AFM4014 (Kit)			
315-260A	AFM4016 (Kit)			
High Lift Blades Kit for 1 unit (9 blades)				
_	AFM4011 (Kit)			
	AFM4014 (Kit)			
315-261A	AFM4016 (Kit)			
Mulching Blades Kit for 1 unit (9 blades)				
	AFM4011 (Kit)			
	AFM4014 (Kit)			
	AFM4016 (Kit)			

Blades are also offered in Kits for 3 units (27 blades). See your Land Pride dealer for blade availability.



Maintenance

Proper servicing and adjustment is the key to the long life of any machinery. With careful and systematic inspection, you can avoid costly maintenance, time and repair.



CAUTION!

For safety reasons, each maintenance operation must be performed with tractor PTO disengaged, the mower lowered completely to the ground or folded with the transport locks engaged and the tractor engine shut off with ignition key removed.

- After using the mower for several hours, check all bolts to be sure they are tight.
- Also check drive belt tension after several hour of mowing. Refer to Belt Tension in the "Adjustments" section on page 20.
- Lubricate items as listed under Lubrication, this section, starting on page 23.
- Always maintain the proper air pressure in the tires.
 The *Tire Inflation Chart* is located in the "Appendix" section on page 46.
- Replace any worn, damaged or illegible safety labels by obtaining new labels from your Land Pride Dealer.
 Information about labels is located under Safety Labels in the "Important Safety Information" section starting on page 4.

Servicing Mower Blades

Blade Inspection

Refer to Refer to Figure 4-1:

Blade Wear: As blades wear and are sharpened, the blade performance will be reduced.

Bent, Deformed or Split Blades should be removed from unit and discarded. DO NOT attempt to straighten for reuse.



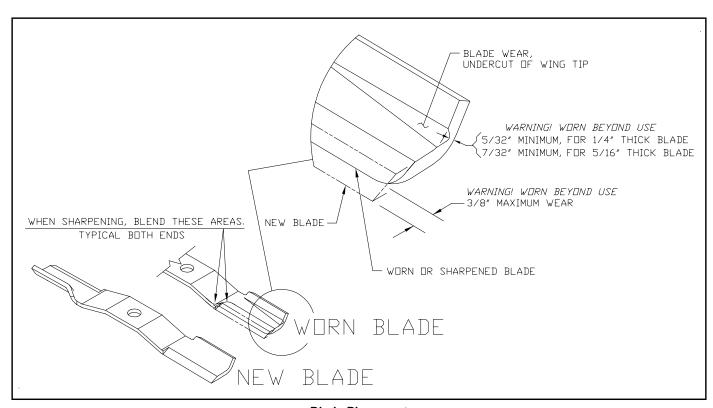
WARNING!

DO NOT attempt to modify blade, such as hard surfacing, heat or cold treating and/or by any other method.



WARNING!

DO NOT try to straighten a blade that is bent. Never weld a broken or cracked blade. ALWAYS replace with a new Land Pride blade to assure safety.



Blade Placement Figure 4-1

Blade Removal And Installation



CAUTION!

Depending on blade rotation, bolts attaching mower blades to their respective spindles may be either left hand or right hand. Prevent spindle and/or bolt damage by knowing which hand the threads are before removing and/or tightening any blade mounting bolts.

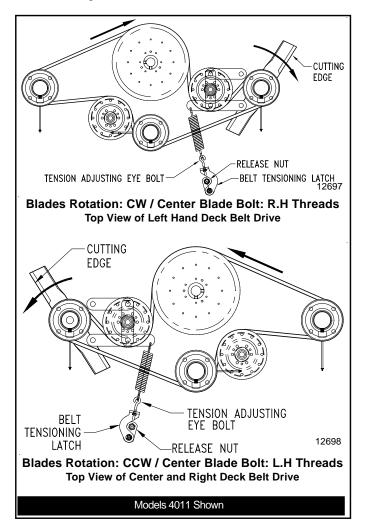
Refer to Figure 4-2 & Figure 4-3:

 Verify blade rotation and bolt thread type (right hand or left hand) before loosening center blade bolt and removing blade to be sharpened or replaced.

NOTE: Center blade bolt on the left hand deck is right hand threads. Center blade bolt on the right hand and center decks are left hand threads. Two outside blade bar bolts are right hand threads.

Refer to Figure 4-4 & Figure 4-5:

Remove blades by grasping the blade end with a rag or thick padded glove while loosening the blade mounting bolt.



Blade Placement Figure 4-2

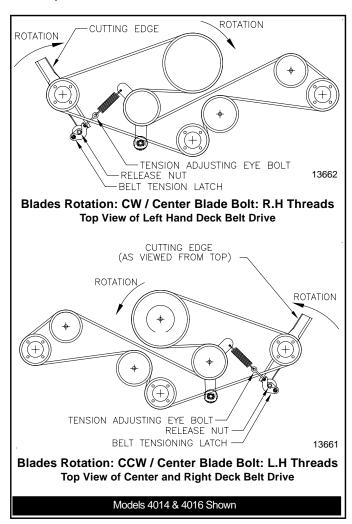
- 3. Remove the center blade bolt (#4) and Washer (#5) from the bottom only of the blade to be replaced.
- 4. (Model 1416 Only.) Remove the two outside bolts to the blade bar (#2).

IMPORTANT: Replace blades with Land Pride blades only.

IMPORTANT: Always install blades with cutting edge facing direction of blade spindle rotation and with wing tips pointing up towards bottom of deck.

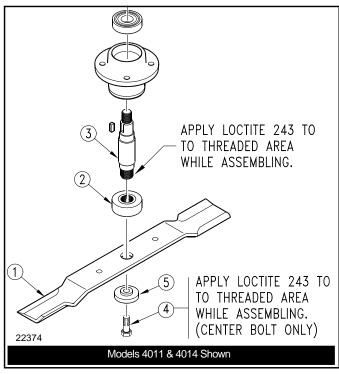
IMPORTANT: Loctite is not required if blade (#1) is removed without removing blade bar (#2). However, If blade bar (#2) is removed from spindle shaft (#3), then apply loctite 243 to spindle shaft threads and to center bolt threads (#4).

 Reinstall blade (!#1), blade washer (#5) and bolt (#4). Care should be taken when installing the blade bolt to not get it cross threaded and to know if the bolt is right hand or left hand. Do not exceed 55 ft.-lbs. of torque on bolt.

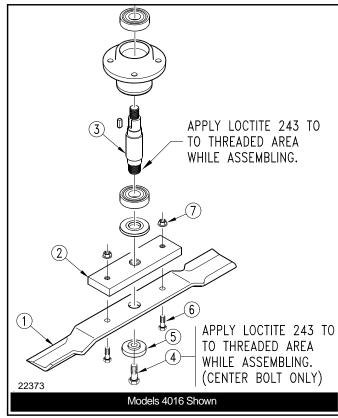


Blade Placement Figure 4-3

6. (Model 1416 Only.) Reinstall the two outside bolts. Tighten to correct torque listed in the *Torque Values Chart* in the "**Appendix**" section on page 46.



Blade & Blade Bar Removal Figure 4-4



Blade & Blade Bar Removal Figure 4-5

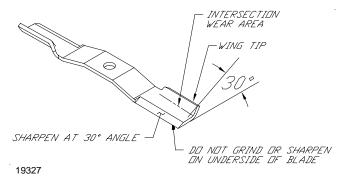
Blade Sharpening



ALWAYS wear eye protection and gloves when sharpening a blade.

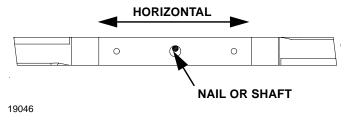
NOTE: Care should be taken in order not to remove any more material than necessary to sharpen blade.

- 1. If the blade cutting edge is dull or nicked, it should be replaced or sharpened.
- 2. Clean blade, blade washer and mounting surface of all debris before replacing or sharpening.
- Grind cutting edge at the same bevel as the original.
 See Figure 4-6. Sharpen only the top of the cutting edge to maintain sharpness.



Blade Sharpening Figure 4-6

4. Check blade balance by positioning the blade horizontally on a nail or shaft through the center hole. See Figure 4-7. If either end of the blade rotates downward, grind (remove) metal on that end until the blade will balance. The blade is properly balanced when neither end drops. Balance of a blade is generally maintained by removing an equal amount of material from each end of the blade when sharpening.



Blade Balancing Figure 4-7

Blade Options:

- Low Lift Blades For use in sandy soils
- Mulching Blades For leaf mulching

V-Belt Installation



CAUTION!

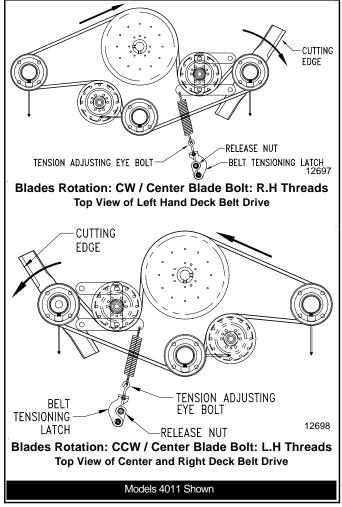
Belt drive system under spring tension; use care to avoid bodily harm!

Refer to Figure 4-8 & Figure 4-9:

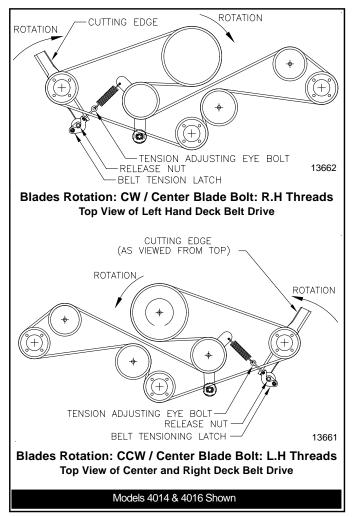
These illustrations are also on the labels located on the top of the mower decks.

- 1. Remove the right hand and the left hand belt covers.
- 2. Disengage belt tensioning latch by turning release nut with a 3/4" wrench. See Figure 4-8 and Figure 4-9 for location of release nut.

- 3. Replace old belt with a new Land Pride belt making sure the new belt is positioned correctly in all the pulley grooves.
- 4. Engage belt tensioning latch by turning the release nut with a 3/4" wrench.
- 5. Check for correct belt tension. Refer to *Belt Tension* in the "**Adjustments**" section on page 46.
- 6. Reinstall all belt covers and secure with hardware.





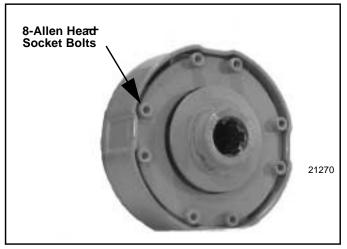


Belt Placement Figure 4-9

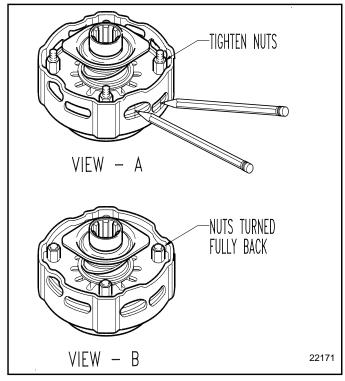
Driveline Protection

Drive components are protected from shock loads by a friction clutch. Friction clutches should be "run-in" prior to initial operation and after long periods of inactivity. You may have one of two types of frictions clutches. Refer to Figure 4-10 and Figure 4-11 to determine which friction clutch your All-Flex mower has. Follow "Clutch Run-In" instructions for your particular mower.

To prevent driveline and gearbox damage, repeat "Run-In" instructions at the beginning of each season and when moisture and/or condensation seizes the inner friction plates.



Clutch Run-In With 8- Alan Head Socket Bolts Figure 4-10



Clutch Run-In With 4 Tightening Nuts Figure 4-11

Clutch Run-In

Clutches With 8-Alan Head Socket Bolts

Refer to Figure 4-10

- 1. Loosen counterclockwise all 8 Alan head socket bolts uniformly 6 full turns.
- Cycle clutch on and off 5 or 6 times (15 seconds on and 15 seconds off) with the engine operating at half throttle. Disengage driveline, shut off tractor and remove key. Wait for all components to stop before dismounting from tractor.
- 3. Tighten Alan head socket bolts fully back. Clutch is ready for use
- 4. The clutch should be checked during the first hour of cutting and periodically each week.

Clutches With 4-Tightening Nuts

Refer to Figure 4-11 (View - A):

- Using a pencil or other marker, scribe a line across the exposed edges of the clutch plates and friction disks.
- Tighten all 4 nuts uniformly until the spring load is low enough that the clutch slips freely with the PTO engaged.
- Start the tractor and engage driveline drive for 2-3 seconds to permit slippage of the clutch surfaces. Disengage the driveline, then re-engage a second time for 2-3 seconds. Disengage driveline, shut off tractor and remove key. Wait for all components to stop before dismounting from tractor.
- 4. Inspect the clutch and ensure that the scribed markings made on the clutch plates have changed position. Slippage has not occurred if any two marks on the friction disk and plate are still aligned. A clutch that has not slipped must be disassembled to separate the friction disk plates. See Clutch Assembly on page 28.

Refer to Figure 4-11 (View - B):

- Turn all 4 nuts fully back if no two marks on the friction disk and plate are still aligned. Clutch is ready for use.
- The clutch should be checked during the first hour of cutting and periodically each week. An additional set of scribe marks can be added to check for slippage.

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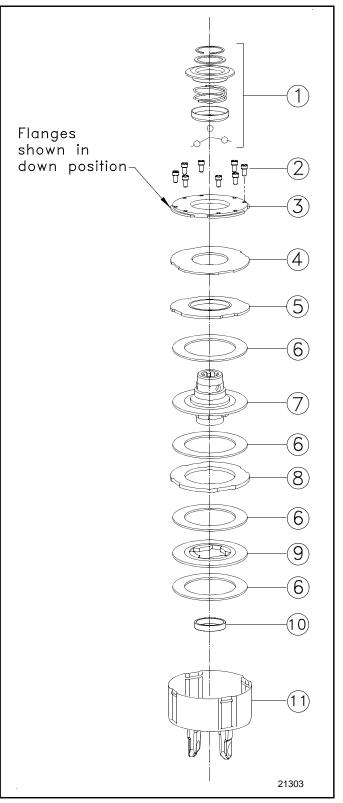
Clutch Assembly

Clutches With 8-Alan Head Socket Bolts

Refer to Figure 4-12

If the clutch run-in procedure, see *Clutches With 8-Alan Head Socket Bolts*, indicated that one or more of the friction disks did not slip, then the clutch must be disassembled to separate the friction disks.

- 1. Rotate 8 Alan head socket bolts (#2) all the way out to free stop flange (#3).
- Rotate stop flange (#3) and remove from housing (#11).
- 3. Remove the following inner components:
 - a. Spring disc (#4)
 - b. Pressure flange (#5)
 - c. 1st Friction Disc (#6)
 - d. Hub with flange and pull collar (#7 & #1)
 - e. 2nd Friction disc (#6)
 - f. Intermediary flange (#8)
 - g. 3rd Friction disc (#6)
 - h. Hub disc (#9)
 - i. 4th Friction disc (#6)
 - j. Bearing (#10)
- 4. Inspect all components and replace to their original position. Make certain stop flange (#3) is replaced with its flanges down as shown.
- 5. Fully tighten all 8 Alan head socket bolts (#2).



Clutch Assembly Figure 4-12

Clutches With 4-Tightening Nuts

NOTE: Before proceeding, secure the clutch firmly in a vise or other clamping device to prevent injury.



Disassembly

◀ Step 1

Remove snap ring.



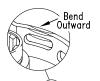
◀ Step 2

Remove backup ring, lock collar, compression spring, bottom backup ring, and balls.



Tighten ∕ Nuts ◀ Step 3

Tighten the four hex nuts uniformly until the clutch pack and hub are loose.



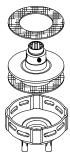
Step 4

Bend all four retaining lugs out on the edge of the clutch housing.



◀ Step 5

Remove the thrust plate with the Belleville Springs and lug rings to access friction disks and hub for inspection or service.



■ Step 6

Inspect friction disks and hub.

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Assembly

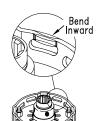
◀ Step 1

Place the hub and friction disks into the housing.



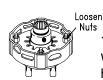
Step 2

Compress the Belleville Springs to the pressure plate by tightening the four hex nuts and then placing the assembly into the clutch housing.



■ Step 3

Bend the retaining lugs inward over the Belleville Spring edges to secure the spring before backing the four hex nuts off.



◀ Step 4

With the lugs bent in, loosen the four hex nuts completely to the end of the threaded studs.



◀ Step 5

Insert greased balls.



■ Step 6

Install bottom backup ring, compression spring, lock collar, and top backup ring.



◀ Step 7

Install snap ring.

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Storage

At the end of the working season or when the mower will not be used for a long period, it is good practice to clean off any dirt or grease that may have accumulated on the mower and any of the moving parts. It may be necessary to scrape off compacted dirt from the bottom of the deck, then use a garden hose to thoroughly clean the surface.

Check the blades for wear and replace, or sharpen, if necessary, refer to "Blade Sharpening", this section, on page 25.

Inspect the mower for loose, damaged or worn parts and adjust or replace if needed.

Lubricate as noted in the *Lubrication* portion of this section starting on page 23.

Release spring tension from drive belt, refer to "Blade Removal And Installation" on page 24.

Repaint parts where paint is worn or scratched to prevent rust. Aerosol touch-up paint is available from your Land Pride dealer. Order Land Pride part #821-011C for Buckskin or 821-002C for Black.

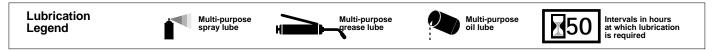
Store mower in a clean, dry place.

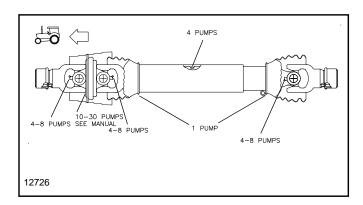
Tires With Air Pressure

Tire Sealant: Heavy Duty tire sealant has been added in Air tires to help reduce air loss from punchers due to nails/thorns etc.... See tire sidewall for optimum tire pressure.

NOTE: Under inflated tires can roll off of rim. Maintaining air pressure within 5 PSI of maximum tire pressure reduces the risk of tires rolling off of rim.

Lubrication Points







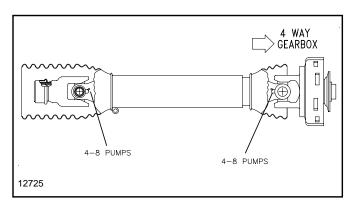
Driveline Constant Velocity Shaft

Type of Lubrication: Multi-purpose Grease

Quantity = See drawing

IMPORTANT: To extend the life of the constant velocity joint, extensive lubrication must be performed every 8 hours of operation!

- k. The constant velocity joint should be greased in a straight position forcing grease through the passages and into the cavity. After lubrication, grease should be visible around the ball joints.
- The constant velocity driveline comes equipped with a grease zerk in the outer telescoping member and must be greased every 8 hours to prevent premature failure of the joint.
- m. Grease fittings are located on the u-joints and driveline shields and should be lubricated every 8 hours of operation.



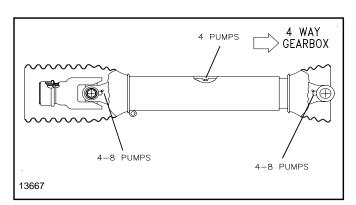


Driveline Shafts

Model 4011

Type of Lubrication: Multi-purpose Grease

Quantity = See drawing



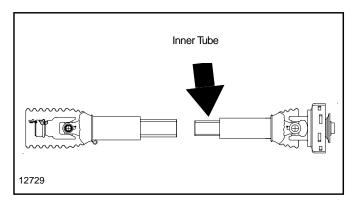


Driveline Shafts

Models 4014 & 4016

Type of Lubrication: Multi-purpose Grease

Quantity = See drawing

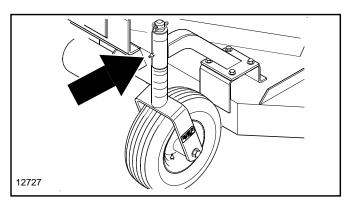




Inner Tube of Driveline

Type of Lubrication: Wheel Bearing Grease

Clean and coat all inner tubes of the Drivelines with a light film of grease and then reassemble.



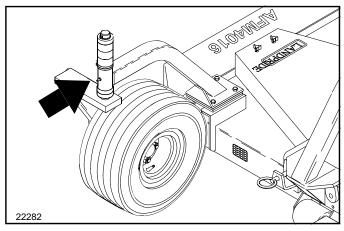


Wheel Support Bushings

Model 4011

Type of Lubrication: Multi-purpose Grease

Quantity = As required



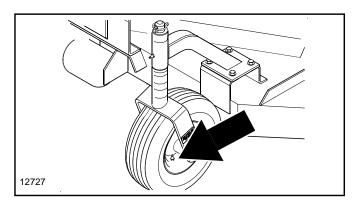


Wheel Support Bushings

Models 4014 & 4016

Type of Lubrication: Multi-purpose Grease

Quantity = As required



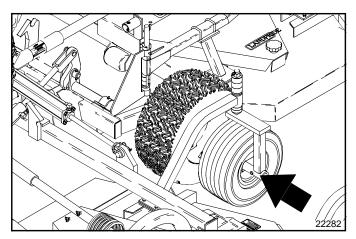


Wheel Bushings (Gauge Wheels)

Model 4011

Type of Lubrication: Multi-purpose Grease

Quantity = As required



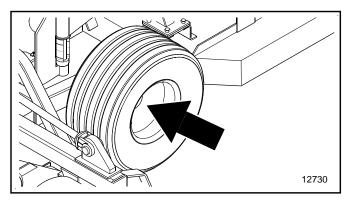


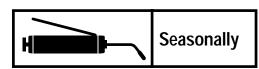
Wheel Bushings (Gauge Wheels)

Models 4014 & 4016

Type of Lubrication: Multi-purpose Grease

Quantity = As required



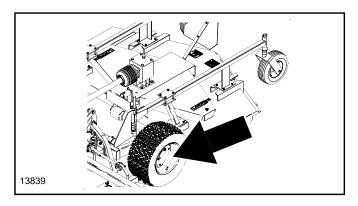


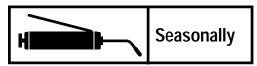
Wheel Bushings (Transport Hubs)

Model 4011

Type of Lubrication: Wheel Bearing Grease

Quantity = As required



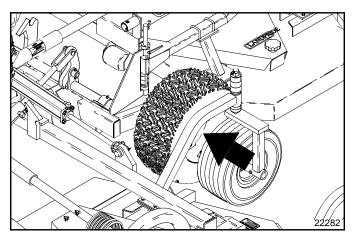


Wheel Bushings (Transport Hubs)

Model 4014

Type of Lubrication: Wheel Bearing Grease

Quantity = As required



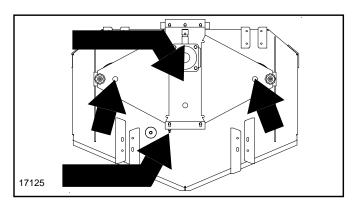


Wheel Bushings (Transport Hubs)

Model 4016

Type of Lubrication: Wheel Bearing Grease

Quantity = As required



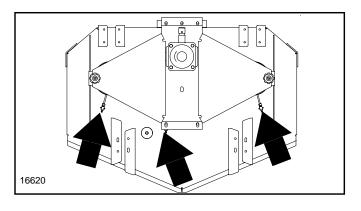


Bearing in Blade Spindle Hubs

Models 4011

Type of Lubrication: Multi-purpose Grease

Quantity = As required





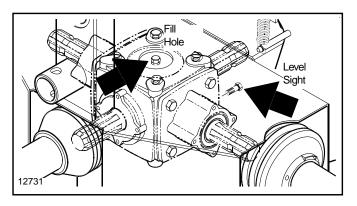
Bearing in Blade Spindle Hubs

Models 4014 & 4016

Type of Lubrication: Multi-purpose Grease

Quantity = As required

Section 5: Maintenance and Lubrication



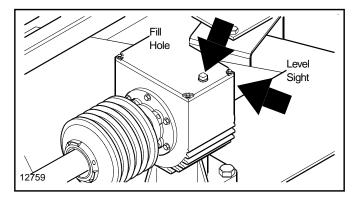


4-Way Gear Box

Type of Lubrication: SAE 90W Gear Lube

With the mower on level ground, check the oil level in the gearbox by removing the plug in the side of the box. The oil should reach the plug hole. If oil level is low, remove the top plug in the gear case and fill with SAE 90 oil until oil flows from side port of the gearbox. Reinstall plugs and retighten. Do not overfill! Should your gearbox require service, take it to your LAND PRIDE dealer.

IMPORTANT: Mower should be level when checking oil in gearbox!





Mower Deck Gear Box

Type of Lubrication: SAE 90W Gear Lube

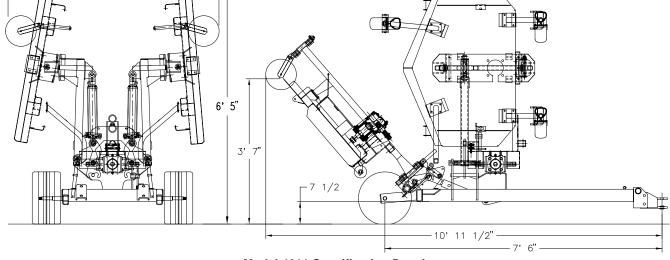
With the mower on level ground, check the oil level in the gearboxes by removing the bottom plug in the back of the gearbox. The oil should reach the plug hole. If oil level is low, remove the top plug in the gear case and fill with SAE 90 oil until oil flows from the fill plug in the back of the gearbox near the bottom. Reinstall plugs and retighten. Do not overfill! Should your gearbox require service, take it to your LAND PRIDE dealer.

IMPORTANT: Mower should be level when checking oil in gearbox!



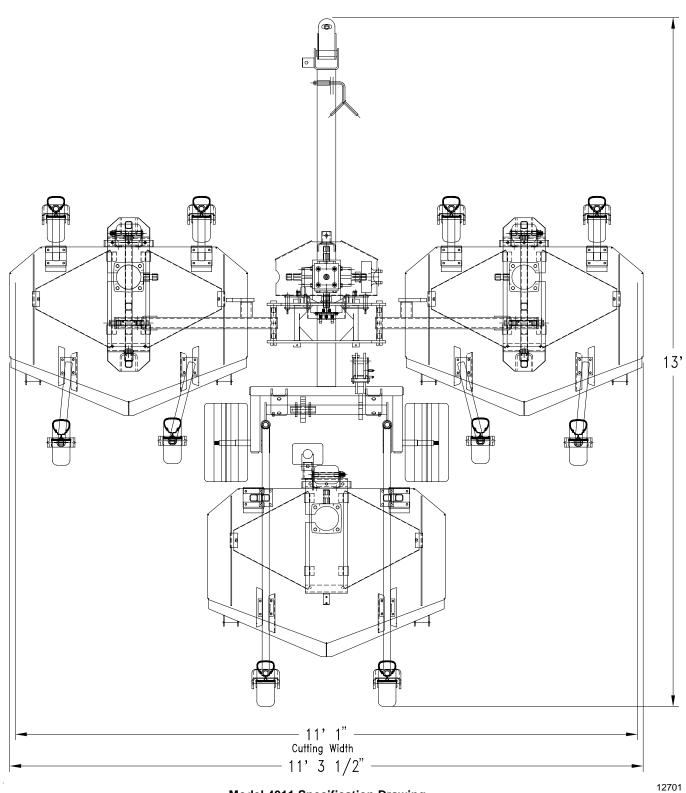
Model AFM4011 All-Flex Grooming Mower

Description	Specification / Capacity	Description	Specification / Capacity
Cutting Width	11'-1"	Blade Drive Belt	1 B-Section
Overall Width	11' -3 1/2"	Drive Belt Tension	Spring Loaded Idler with Overcenter Release
Transport Height	6' -5"	Blade Bearing	Sealed Ball Bearings
Transport Width	5'- 6" With Lock Pins Installed	Blades 3 Each Per Deck	Medium Lift (1/4" x 2 1/2" x 16 7/8") Optional Blades: Low Lift, High Lift & Mulching
Overall Length	13'-0" Moving Position 10'-11" Transport Position	Blade Overlap	1 3/16"
Machine Weight	1,740 lbs.	Blade Spindle Speed	3,628 RPM
Hitch	Pull Type with Adjustable Clevis and Safety Tow Chain	Blade Tip Speed	16,020 F.P.M.
Tongue Support	2,200 lb. Capacity Screw Jack	Transport Tires (2)	18" x 9.5" - 8-Hi Flotation, Sealant, 4-Bolt Hubs & Tapered Bearings
Tractor Horsepower	Minimum 30 HP / Maximum 65 HP	Deck Tires	13" x 5" -5 Air Tire, Sealant, Roller Bearings
Gearbox Support	1/4" Steel Channel	Deck Wheel Spindles	1 1/4" w/Nylon Bushings
Gearboxes	540 RPM (1)-Splitter & (3)-Wing	Deck Cylinders	Dual Acting
Main Driveline	(1) Category III with Constant Velocity	Hydraulic Outlets	1 Set Required
Wing Drivelines	(3) Category II with or without Slip Clutch	Wing Flex	23 Degrees Left To Right 22 Degrees Front To Back
Cutting Height	1" to 5 1/2" (In 1/2" increments)	Center Deck Flex	13 Degrees Front To Back
Deck Size & Quantity	3 each / 48"	Wing Locks	Automatic with Pull Rope Release
Deck Overlap	6 3/16"	Gauge Wheel Arms	1/4" Wall Square Tubing
Deck Thickness	10 ga.	Turning Radius	Zero Turning Radius
Anti-Scalp Roller	Front Center and Outside Deck Corners	@4 mph	2.68 Acres 5.37 Acres 8.10 Acres
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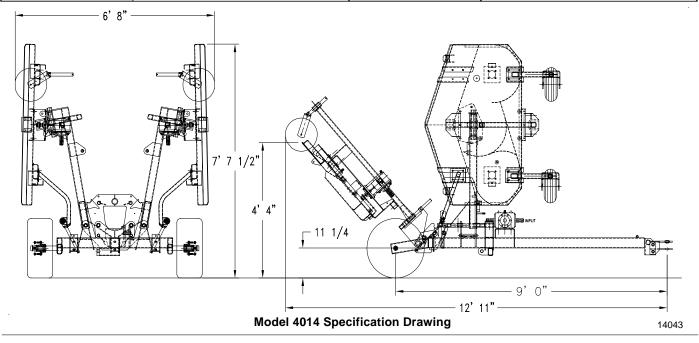
Model 4011



Model 4011 Specification Drawing

AFM4014 Series

Description	Specification / Capacity	Description	Specification / Capacity		
Cutting Width	14'-0"	Blade Drive Belt	1 B-Section		
Overall Width	14'-3"	Drive Belt Tension	Spring Loaded Idler with Overcenter Release		
Transport Height	7'-7 1/2"	Blade Bearing	Sealed Ball Bearings		
Transport Width	6' - 8"	Blades 3 Each Per Deck	Low Lift (1/4" x 2 1/2" x 20 29/32") Optional Blades: Medium Lift, High Lift & Mulching		
Overall Length	14'-10" Mowing Position 12'-11" Transport Position	Blade Overlap	1 1/4"		
Machine Weight	2,560 lbs.	Blade Spindle Speed	3,362 R.P.M.		
Hitch	Pull Type with Adjustable Clevis and Safety Tow Chain	Blade Tip Speed	18,396 F.P.M.		
Tongue Support	2,200 lb. Capacity Screw Jack	Transport Tires (2)	23 x 10.5 with Sealant		
Tractor Horsepower	Minimum 40 HP / Maximum 70 HP	Deck Tires	10 each, Air, 18 x 9.5 with Sealant		
Gearbox Support	1/4" Steel Channel	Deck Wheel Spindles	1 1/4" w/Nylon Bushings		
Gearboxes	540 RPM (1)-Splitter & (3)-Wing	Deck Cylinders	Dual Acting		
Main Driveline	(1) Category IV with Constant Velocity	Hydraulic Outlets	1 Set Required		
Wing Drivelines	(3) Category II with or without Slip Clutch	Wing Flex	23 Degrees Left To Right 22 Degrees Front To Back		
Cutting Height	3/4" to 5 1/4" (In 1/4" increments)	Center Deck Flex	10 Degrees Left To Right 22 Degrees Front To Back		
Deck Size & Quantity	3 each / 60"	Wing Locks	Automatic with Pull Rope Release		
Deck Overlap	6"	Gauge Wheel Arms	1/4" Wall Square Tubing		
Deck Thickness	3/16"	Turning Radius	Zero Turning Radius		
Anti-Scalp Roller	Front Center and Outside Deck Corners	@4 mph	3.39 Acres 6.78 Acres 10.17 Acres		

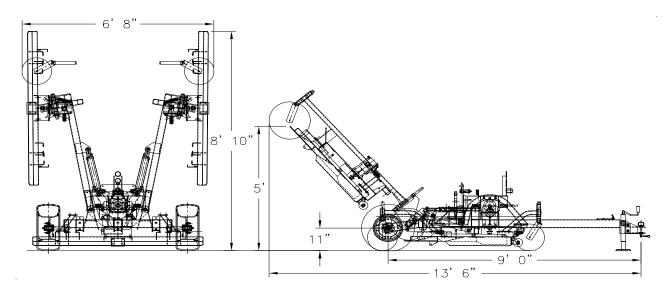


Model 4014 14' 10" - 14' 3" -14044

Model 4014 Specification Drawing

AFM4016 Series

Description	Specification / Capacity	Description	Specification / Capacity		
Cutting Width	16'- 8"	Blade Drive Belt	1 B-Section		
Overall Width	16' -10"	Drive Belt Tension	Spring Loaded Idler with Overcenter Release		
Transport Height	8' -10"	Blade Bearing	Sealed Ball Bearings		
Transport Width	6'- 8" With Lock Pins Installed	Blades 3 Each Per Deck	Low Lift (1/4" x 2 1/2" x 25") Optional Blades: Medium Lift, High Lift & Mulching		
Overall Length	15'-0" Mowing Position 13'-4" Transport Position	Blade Overlap	1 1/4"		
Machine Weight	3,100 lbs.	Blade Spindle Speed	2,302 R.P.M.		
Hitch	Pull Type with Adjustable Clevis and Safety Tow Chain	Blade Tip Speed	18,340 F.P.M.		
Tongue Support	2,200 lb. Capacity Screw Jack	Transport Tires (2)	23 x 10.5 with Sealant		
Tractor Horsepower	Minimum 40 HP / Maximum 70 HP	Deck Tires	10 each, Air, 18 x 9.5 with Sealant		
Gearbox Support	1/4" Steel Channel	Deck Wheel Spindles	1 1/4" w/Nylon Bushings		
Gearboxes	540 RPM (1)-Splitter & (3)-Wing	Deck Cylinders	Dual Acting		
Main Driveline	(1) Category IV with Constant Velocity	Hydraulic Outlets	1 Set Required		
Wing Drivelines	(3) Category II with or without Slip Clutch	Wing Flex	23 Degrees Left To Right 22 Degrees Front To Back		
Cutting Height	3/4" to 5 1/4" (In 1/4" increments)	Center Deck Flex	10 Degrees Left To Right 22 Degrees Front To Back		
Deck Size & Quantity	3 each / 72"	Wing Locks	Automatic with Pull Rope Release		
Deck Overlap	8"	Gauge Wheel Arms	1/4" Wall Square Tubing		
Deck Thickness	3/16"	Turning Radius	Zero Turning Radius		
Anti-Scalp Roller	Front Center and Outside Deck Corners	@4 mph	4.0 Acres Per Hour 8.0 Acres Per Hour 12.1 Acres Per Hour		



Model 4016 Specification Drawing

17853

Model 4016 15' – 16'8" ——

Model 4016 Specification Drawing

13665



AFM4014 All-Flex Grooming Mower

Features	Benefits
Counter rotation on left hand deck	Spreads grass clippings more evenly.
Optional Slip clutch protection	Guards against premature gearbox failure. Protects mower deck spindles.
6" Deck overlap	Eliminates blade skips when turning. Tighter turns can be made.
Back wheels on side decks even with transportation tires	Allows the unit to be turned tighter without skips.
Rigid rear side deck tires	Holds hills and slopes better. Safer unit than the competition.
Removable transportation tire spindles	Allows a spindle to be replaced by simply removing two bolts.
High tip speed	Lifts the grass up for a better cut. Better discharge of material. Tip rates as high or higher than the competition.
Deflectors built into mower decks	Safety features meet ANSI standards. Many competitors use chains for protection. Once chains are removed the unit may not meet ANSI specifications.
Heavy center gearbox mounting plate	Handles start up torque.
Large flotation tires with sealant	18" Deck tires offer great flotation, less pounds per square inch.
Sleek frame design, including single beam hitch and compact deck overlap	Allows operator to make tighter runs without leaving windrows and skips. AFM virtually becomes a zero turn mower.
Gearbox warranty	S/N 368188- one year on all gearbox components. S/N 368188+ 5 years on gearbox housing, gears and shafts, 3 years on bearings and seals in gearbox.
Narrow transport width	6'8" Transport width allows the unit to be transported with ease.
Low pivot points on deck	The lower the pivot points are to the ground, the more side to side swing, allowing for excellent flotation from each deck.
Gearbox HP Rating	40 - 70 HP
Automatic wing locks	When wings are raised in the full transport position, the wings lock in place, no need to get off the tractor to lock.
1/4" Gauge wheel arms	1/4" Sidewall thickness on gauge wheel arms means a great deal of 'hidden' strength.
Rear discharge	Even dispersal, discharged items are always aimed downward. No rear chains are needed, which tend to clump damp grass.
23" Transport tires with tapered bearings	23" Transport tires offer smooth roading. Tapered bearings offer longevity.
18,396 fpm Blade tip speed	High blade tip speed for clean cut and efficient discharge.
Cat. 4 CV main driveline	Constant velocity main driveline allows for tighter turns without harming U-joints in driveline.
Mulching blades	Mulching blades are available.
Cat. 2 slip-clutch wing drivelines	Reduces start-up torque that is put on the driveline, gearbox and gearbox support.
Easy belt tension release	Easily release belt tension for changing belt or for winter storage.
Easy to grease blade spindles	No guards to remove for routine greasing of blade spindles.

AFM4016 All-Flex Grooming Mower

Features	Benefits
Low pivot points on deck	The lower the pivot points are to the ground, the more side to side swing, allowing for excellent flotation from each deck.
Narrow 6'8" transport width	Not much wider than most tractors, making for safer transport. Meets most city/county codes for transport width.
Gearbox HP Rating	40 - 70 HP
8" Deck overlap	Eliminates skipping when going into a tight turn.
Automatic wing locks	When wings are raised in the full transport position, the wings lock in place, no need to get off the tractor to lock.
1/4" Gauge wheel arms	1/4" Sidewall thickness on gauge wheel arms means a great deal of 'hidden' strength.
Sleek frame design	Single beam hitch design allows for a zero turning radius.
Rear discharge	Even dispersal, discharged items are always aimed downward. No rear chains are needed, which tend to clump damp grass.
Blade rotation	Counter rotation; Wing decks throw grass away from the path of the rear deck. Rear deck doesn't get covered up nor does it get bogged down by cut grass.
18" Deck tires with sealant	18" Tires offer great flotation, less lbs. per square inch. Sealant minimizes flats.
23" Transport tires with tapered bearings	23" Transport tires offer smooth roading. Tapered bearings offer longevity.
18,340 fpm Blade tip speed	High blade tip speed for clean cut and efficient discharge.
Cat. 4 CV main driveline	Constant velocity main driveline allows for tighter turns without harming U-joints in driveline.
Mulching blades	Mulching blades are available.
Cat. 2 slip-clutch wing drivelines	Reduces start-up torque that is put on the driveline, gearbox and gearbox support.
Easy belt tension release	Easily release belt tension for changing belt or for winter storage.
Easy to grease blade spindles	No guards to remove for routine greasing of blade spindles.
Gearbox Warranty	S/N 368188- one year on all gearbox components. S/N 368188+ 5 years on gearbox housing, gears and shafts, 3 years on bearings and seals in gearbox.



Problem	Cause	Solution				
Oil seal leaking	Gearbox overfilled	Drain to level fill hole				
	Seals damaged	Replace seals				
	Grass or wire wrapped on shaft in seal area	Clean off wrapped material and check seal areas daily				
Driveline yoke or cross	Shock load	Avoid hitting solid objects				
failing	Bottoming out	Shorten driveline profiles				
	Front constant velocity driveline mounted wrong	Be sure constant velocity joint is to tractor PTO output shaft				
	Folding mower with drive engaged	Never fold mower decks with PTO engaged				
	Needs lubrication	Lubricate every 25 hours				
Bent driveline (NOTE: driveline should be	Contacting drawbar	Reposition drawbar				
repaired or replaced if bent)	Bottoming out	Shorten driveline profiles				
Driveline telescoping profile failing	Shock load	Avoid hitting solid objects				
Driveline telescoping profile wearing	Needs lubrication	Lubricate every 50 hours				
Unable to turn sharply with mower engaged	Front constant velocity driveline mounted wrong	Be sure constant velocity joint is attached to tractor PTO output shaft				
Blades wearing	Cutting on sandy ground	Raise cutting height. Change to low lift blades				
excessively	Contacting ground frequently	Raise cutting height				
Blades breaking	Hitting solid objects	Avoid solid objects				
Excessive vibration	Driveline bent	Replace bent drivelines				
	Blade broken or bent	Replace blade				
	Cross not centered with yoke	Disassemble and inspect for incorrectly located needles or damaged bearing cap				
	Debris in sheaves or on mower deck	Remove belt guard shield and clean debris from belt are and sheaves				
	Sheaves damaged or out of alignment	Replace sheaves or align				
	Drive belt damaged	Replace drive belt - check for belt contacting deck component.				
	Inadequate clearance between belt guard shields & belt	Remove belt guard shields & clean debris from belt area & sheaves				

Section 8: Troubleshooting

Problem	Cause	Solution		
Discharge openings	Belt not installed correctly	Check installation of belt		
plugged	Grass too wet	wet Wait until grass dries		
	Grass too tall	Raise cutting height of mower and cut grass twice		
	RPM of tractor too low	Mow at full throttle (540 PTO rpm) Check PTO speed & tractor engine		
	Ground speed too fast	Shift transmission to a lower gear		



CAUTION!

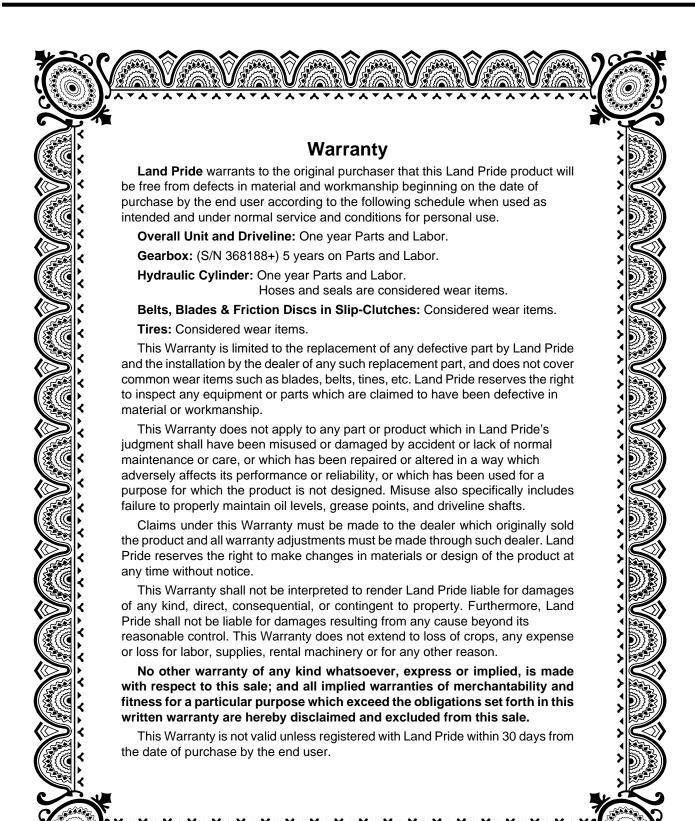
Do not try to clean discharge opening when mower is running. Bodily harm may occur.

Belt slipping	Plugged grooming mower	Unplug and clean mower deck		
	Debris in sheave	Remove belt guard shields and clean sheaves		
	Low belt spring tension	Retighten spring take-up bolt		
	Worn belt	Replace belt		
Patches of uncut grass	RPM of tractor too low	Mow at full throttle (540 PTO rpm). Check PTO speed & tractor engine.		
	Ground speed too fast	Shift transmission to a lower gear		
	Blade damaged or dull	Sharpen & balance or replace blade		
	Blade rotation wrong	Install correct rotation blade		
Gearbox noisy	Low lubricant level	Check lubricant level		
Blades scalping grass	Cutting too low	Raise cutting height by adjusting wheels		
	Ridges in terrain	Change mowing pattern		
	Fast turning speed	Reduce speed on turns		
Uneven cut	Ground speed too fast	Shift to a lower gear		
	Mower not level	Level mower		
	Dull blades	Sharpen blades & balance or replace		
Tractor loaded down by	RPM of engine too low	Mow at tractor's rated PTO RPM (540 PTO RPM)		
mower	Ground speed too fast	Shift to a lower gear		
	Debris wrapped around mower spindles or blades	Clean mower		
	Tractor PTO horse power rating too low	Raise cutting height of the mower and cut the grass twice. Shift to a lower gear. Use a tractor with more horsepower		
	Blades lift too high	Change to lower lift blades if they will cut the grass satisfactorily		



Torque Values Chart for Common Bolt Sizes													
	Bolt Head Identification						Bolt Head Identification						
Bolt Size (Inches)	Gra	ide 2	Gra	ade 5	Gra	ide 8	Bolt Size (Metric)	Class	5.8	Class	8.8	Class	0.9
in-tpi ¹	N -	ft-	N.	ft-lb	N -	ft-lb	mm x	N ·	ft-lb	N -	ft-lb	N -	ft-lb
1/4" - 20	7.4	5.6	11	8	16	12	M 5 X 0.8	4	3	6	5	9	7
1/4" - 28	8.5	6	13	10	18	14	M 6 X 1	7	5	11	8	15	11
5/16" - 18	15	11	24	17	33	25	M 8 X 1.25	17	12	26	19	36	27
5/16" - 24	17	13	26	19	37	27	M 8 X 1	18	13	28	21	39	29
3/8" - 16	27	20	42	31	59	44	M10 X 1.5	33	24	52	39	72	53
3/8" - 24	31	22	47	35	67	49	M10 X 0.75	39	29	61	45	85	62
7/16" - 14	43	32	67	49	95	70	M12 X 1.75	58	42	91	67	125	93
7/16" - 20	49	36	75	55	105	78	M12 X 1.5	60	44	95	70	130	97
1/2" - 13	66	49	105	76	145	105	M12 X 1	90	66	105	77	145	105
1/2" - 20	75	55	115	85	165	120	M14 X 2	92	68	145	105	200	150
9/16" - 12	95	70	150	110	210	155	M14 X 1.5	99	73	155	115	215	160
9/16" - 18	105	79	165	120	235	170	M16 X 2	145	105	225	165	315	230
5/8" - 11	130	97	205	150	285	210	M16 X 1.5	155	115	240	180	335	245
5/8" - 18	150	110	230	170	325	240	M18 X 2.5	195	145	310	230	405	300
3/4" - 10	235	170	360	265	510	375	M18 X 1.5	220	165	350	260	485	355
3/4" - 16	260	190	405	295	570	420	M20 X 2.5	280	205	440	325	610	450
7/8" - 9	225	165	585	430	820	605	M20 X 1.5	310	230	650	480	900	665
7/8" - 14	250	185	640	475	905	670	M24 X 3	480	355	760	560	1050	780
1" - 8	340	250	875	645	1230	910	M24 X 2	525	390	830	610	1150	845
1" - 12	370	275	955	705	1350	995	M30 X 3.5	960	705	1510	1120	2100	1550
1-1/8" - 7	480	355	1080	795	1750	1290	M30 X 2	1060	785	1680	1240	2320	1710
1 1/8" - 12	540	395	1210	890	1960	1440	M36 X 3.5	1730	1270	2650	1950	3660	2700
1 1/4" - 7	680	500	1520	1120	2460	1820	M36 X 2	1880	1380	2960	2190	4100	3220
1 1/4" - 12	750	555	1680	1240	2730	2010							
1 3/8" - 6	890	655	1990	1470	3230	2380	¹ in-tpi = nomi	nal threa	ad dia. ir	n inches	-threads	per incl	h
1 3/8" - 12	1010	745	2270	1670	3680	2710	² N⋅ m = newto	n-meter	s				
1 1/2" - 6	1180	870	2640	1950	4290	3160	³ ft-lb= foot po	unds					
1 1/2" - 12	1330	980	2970	2190	4820	3560	4 mm x pitch = nominal thread dia. in millimeters x thread pitch						
Torque tolerance + 0%, -15% of torquing values. Unless otherwise specified use torque values listed above.													

Tire Inflation Chart								
Model 4011		Models 4014 & 4016	6					
Tire Size Inflation PSI			Tire Size	Inflation PSI				
18 x 9.50 -8 x 4-Ply	24		23 x 10.50 x 4-Ply	20				
4 x 11 x 5 2-Ply	22		13 x 5.00 x 4-Ply	28				
4 x 11 x 5 4-Ply	46							





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